

WHAT IS CLAIMED IS:

1           1.       A method of treating an inflammatory disorder in a mammal, said method  
2 comprising administering to said mammal a therapeutically effective amount of an antagonist of  
3 a native sequence STIgMA polypeptide.

1           2.       The method of Claim 1 wherein said native sequence STIgMA polypeptide is  
2 selected from the group consisting of polypeptides of SEQ ID NOS: 2, 32, 33, and 34.

1           3.       The method of Claim 2, wherein said antagonist is an antibody.

1           4.       The method of Claim 3, wherein the antibody is a monoclonal antibody.

1           5.       The method of Claim 4, wherein the antibody has non-human complementarity  
2 determining region (CDR) residues and contains human framework region (FR) residues.

1           6.       The method of Claim 5, wherein the antibody is a composition in admixture with  
2 a pharmaceutically acceptable carrier or excipient.

1           7.       The method of Claim 4 wherein said antagonist is an immunoadhesin.

1           8.       The method of Claim 7 wherein said immunoadhesin comprises a STIgMA  
2 extracellular domain sequence fused to an immunoglobulin constant region sequence.

1           9.       The method of Claim 8 wherein said extracellular domain sequence is essentially  
2 free of transmembrane domain sequences.

1           10.      The method of Claim 9 wherein said immunoglobulin is an IgG.

1           11.      The method of Claim 10 wherein said IgG is IgG1 or IgG3.

1           12.      The method of Claim 2 wherein the inflammatory disorder is selected from the  
2 group consisting of: inflammatory bowel disease; systemic lupus erythematosus; rheumatoid  
3 arthritis; juvenile chronic arthritis; spondyloarthropathies; systemic sclerosis, for example,  
4 scleroderma; idiopathic inflammatory myopathies for example, dermatomyositis, polymyositis;

5 Sjögren's syndrome; systemic vaculitis; sarcoidosis; autoimmune hemolytic anemia for example,  
6 immune pancytopenia, paroxysmal nocturnal hemoglobinuria; autoimmune thrombocytopenia,  
7 for example, idiopathic thrombocytopenic purpura, immune-mediated thrombocytopenia;  
8 thyroiditis, for example, Grave's disease, Hashimoto's thyroiditis, juvenile lymphocytic  
9 thyroiditis, atrophic thyroiditis; diabetes mellitus, immune-mediated renal disease, for example,  
10 glomerulonephritis, tubulointerstitial nephritis; demyelinating diseases of the central and  
11 peripheral nervous systems such as multiple sclerosis, idiopathic polyneuropathy; hepatobiliary  
12 diseases such as infectious hepatitis such as hepatitis A, B, C, D, E and other nonhepatotropic  
13 viruses; autoimmune chronic active hepatitis; primary biliary cirrhosis; granulomatous hepatitis;  
14 and sclerosing cholangitis; inflammatory and fibrotic lung diseases (*e.g.*, cystic fibrosis); gluten-  
15 sensitive enteropathy; Whipple's disease; autoimmune or immune-mediated skin diseases  
16 including bullous skin diseases, erythema multiforme and contact dermatitis, psoriasis; allergic  
17 diseases of the lung such as eosinophilic pneumonia, idiopathic pulmonary fibrosis and  
18 hypersensitivity pneumonitis, transplantation associated diseases including graft rejection and  
19 graft-versus host disease.

1 13. The method of Claim 12 wherein said inflammatory disorder is rheumatoid  
2 arthritis.

1 14. The method of Claim 12 wherein said mammal is human.

1 15. The method of Claim 13 wherein said mammal is human.

1 16. A method of diagnosing an inflammatory disorder in a mammal, said method  
2 comprising detecting the level of expression of a gene encoding a STIgMA polypeptide (a) in a  
3 test sample of cells obtained from said mammal, and (b) in a control sample of known normal  
4 cells of the same cell type, wherein a higher level of expression of said gene in the test sample as  
5 compared to the control sample is indicative of the presence of an immune related disorder in  
6 the mammal from which the test tissue cells were obtained.

1 17. The method of Claim 16 wherein said STIgMA polypeptide is selected from the  
2 group consisting of polypeptides of SEQ ID NO: 2, 32, 33, and 34.

1 18. A method of diagnosing an inflammatory disorder in a mammal, said method  
2 comprising (a) contacting an anti-STIgMA antibody with a test sample of cells obtained from

3 said mammal, and (b) detecting the formation of a complex between the antibody and STIgMA  
4 polypeptide in the test sample, wherein formation of said complex is indicative of the presence  
5 of an inflammatory disorder in said mammal.

1 19. An isolated antibody which specifically binds a STIgMA polypeptide.

1 20. The antibody of Claim 19 wherein said STIgMA polypeptide is selected from the  
2 group consisting of polypeptides of SEQ ID NOS: 2, 32, 33, and 34.

1 21. The antibody of Claim 20 which is a monoclonal antibody.

1 22. The antibody of Claim 21 which contains non-human complementarity  
2 determining region (CDR) residues and human framework region (FR) residues.

1 23. The antibody of Claim 22 which is labeled.

1 24. The antibody of Claim 23 which is immobilized on a solid support.

1 25. The antibody of Claim 20 which is an antibody fragment, a single-chain antibody,  
2 or an anti-idiotypic antibody.

1 26. A composition comprising the antibody of Claim 22 in admixture with a  
2 pharmaceutically-acceptable carrier.

1 27. An isolated nucleic acid molecule comprising a nucleotide sequence encoding a  
2 polypeptide having at least about 80% sequence identity with the amino acid sequence of amino  
3 acids 21 to 276 of SEQ ID NO: 32, or amino acids 21 to 182 of SEQ ID NO: 33, or amino acids  
4 21 to 180 of SEQ ID NO: 34.

1 28. The isolated nucleic acid molecule of Claim 27 wherein said sequence identity is  
2 at least about 85%.

1 29. The isolated nucleic acid molecule of Claim 28 wherein said sequence identity is  
2 at least about 90%.

1           30.    The isolated nucleic acid molecule of Claim 29 wherein said sequence identity is  
2   at least about 95%.

1           31.    The isolated nucleic acid molecule of Claim 30 wherein said sequence identity is  
2   at least about 99%.

1           32.    A vector comprising the nucleic acid molecule of Claim 27.

1           33.    A cell comprising the vector of Claim 32.

1           34.    An isolated nucleic acid molecule comprising a nucleotide sequence encoding a  
2   polypeptide selected from the group consisting of amino acids 21 to 399 of SEQ ID NO: 32,  
3   amino acids 21 to 305 of SEQ ID NO: 33, and amino acids 21 to 280 of SEQ ID NO: 34.

1           35.    A vector comprising the nucleic acid molecule of Claim 34.

1           36.    A cell comprising the vector of Claim 35.

1           37.    A polypeptide comprising an amino acid sequence selected from the group  
2   consisting of amino acids 21 to 276 of SEQ ID NO: 32, amino acids 21 to 182 of SEQ ID NO:  
3   33, and amino acids 21 to 180 of SEQ ID NO: 34.

1           38.    An immunoadhesin comprising amino acids from 1 or about 21 to about 276 of  
2   SEQ ID NO: 32, or amino acids from 1 or about 21 to about 182 of SEQ ID NO: 33, or amino  
3   acids 1 or about 21 to about 180 of SEQ ID NO: 34, fused to an immunoglobulin constant region  
4   sequence.

1           39.    The immunoadhesin of Claim 38 wherein said constant region sequence is a  
2   sequence of an immunoglobulin heavy chain constant region.